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09/098,544	06/17/1998	TAKA AKI ENDO	2355.10102	4229

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EXAMINER

LEE, RICHARD J

ART UNIT

PAPER NUMBER

2613

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25

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/098,544

Applicant(s)

Endo et al

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jul 18, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.
- ### Disposition of Claims
- 4) ☒ Claim(s) 24-27 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilblom et al (5,650,813) in view of Lanckton et al of record (5,517,419) and Fields et al (5,767,845)

Gilblom et al discloses a panoramic time delay and integration video camera system as shown in Figure 6, and substantially the same image processing method and apparatus as claimed in claims 24 and 27 for synthesizing first image data sensed by a first image sensing means (i.e., 14 of Figure 6, and see column 7, lines 55-65) with second image data sensed by a second image sensing means (i.e., 14 of Figure 6, and see column 7, lines 55-65), wherein the first and second image sensing means are arranged separately with a known distance between them (see column 7, lines 55-65), comprising substantially the same first retrieving means for retrieving image data sensed at a first instant from among a group of the first image data (i.e., 32 of Figure 6); second retrieving means (i.e., 32 of Figure 6) for retrieving image data sensed at a second time instant, after a time corresponding to the known distance from the first time instant, from among a group of the second image data, where the second time instant is a time occurring after the first time instant by a time period corresponding to the known distance between the first image sensing means and the second image sensing means (see column 7, lines 55-65); and synthesizing means

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(i.e., 112 of Figure 6) for synthesizing the two retrieved image data to make panoramic image data (see column 7, line 55 to column 8, line 41).

Gilblom et al does not particularly disclose, though, the followings:

(a) wherein the first and second image sensing means are arranged separately on a mobile object with a known distance between them in the moving direction of the mobile object, wherein the first image sensing means is arranged to have an image sensing direction substantially aligned with the moving direction of the moving object, the second image sensing means is arranged to have an image sensing direction aligned with a direction opposite to the moving direction of the mobile object, and wherein each of the first and second image data is recorded with information indicating where the image was sensed as claimed in claims 24, 26 and 27;

(b) wherein the time period between the first time instant and the second time instant is determined from the known distance and a velocity of the mobile object at the time the first and second images were sensed as claimed in claim 25; and

(c) wherein each of the first and second image data is recorded with information indicating when the image data was sensed as claimed in claims 24 and 27.

Regarding (a) and (b), Lanckton et al discloses an advanced terrain mapping system as shown in Figure 1, and the teaches the use of plural image sensing means arranged separately on a mobile object (see column 7, lines 15-65). It is therefore considered obvious to modify Lanckton et al by providing the plural image sensing means 14 of Figure 6 of Gilblom et al on the mobile object of Lanckton et al, to thereby further provide the first and second image sensing means (i.e.,

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14 of Figure 6 of Gilblom) being arranged separately on a mobile object with a known distance between them in the moving direction of the mobile object, wherein the first image sensing means is arranged to have an image sensing direction substantially aligned with the moving direction of the moving object, the second image sensing means is arranged to have an image sensing direction aligned with a direction opposite to the moving direction of the mobile object as claimed.

Further, Lanckton et al shows substantially the same time period between the first time instant and the second time instant being determined from the known distance and a velocity of the mobile object at the time the first and second images were sensed, and wherein each of the first and second image data is recorded with information indicating where the image was sensed (i.e., image and position data are correlated for a given area of terrain in order to record and retrieve positioning information thereby providing the recording of image data with information concerning a time difference based on the known distance, and the actual rate at which image data is captured and recorded is based on the speed (velocity) of the vehicle, see column 2, lines 35-38, column 4, lines 9-19, column 5, lines 24-36, column 6, lines 25-67, column 7, line 15 to column 8, line 29, and column 10, lines 19-31). Therefore, it would have been obvious to one of ordinary skill in the art, having the Gilblom et al and Lanckton et al references in front of him/her and the general knowledge of the synthesizing and recording of images, would have had no difficulty in providing plural sensing means being arranged separately on a mobile object with a known distance between them in the moving direction of the moving object, the recording of first and second image data with information indicating where the image was sensed, and wherein the time

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period between the first time instant and the second time instant is determined from the known distance and a velocity of the mobile object at the time the first and second images were sensed all as taught by Lanckton et al as part image pickup and display system of Gilblom et al for the same well known image synthesizing and recording purposes as claimed.

Regarding (c), Fields et al discloses a method of changing the visibility of some characteristics or information to be included in a hard copy of a recorded image as shown in Figures 2-5, and teaches the conventional recordings of information indicating when the image data was sensed (see column 3, line 54 to column 4, line 11). Therefore, it would have been obvious to one of ordinary skill in the art, having the Gilblom et al, Lanckton et al, and Fields et al references in front of him/her and the general knowledge of recordings of information on captured image data, would have had no difficulty in providing the recording of information indicating when the image data was sensed as taught by Fields for the first and second image data 32 of Figure 6 of Gilblom et al for the same well known date identification purposes as claimed.

3. Regarding the applicants' arguments at pages 6-7 of the amendment filed July 18, 2003 concerning in general that "... the mere fact that references can be combined does not render a claimed combination obvious unless the cited art suggests the desirability of the combination ... nowhere does the Office Action assert that the cited art suggests the desirability of the combination. Therefore, Applicants submit that the Office has completely failed to satisfy its burden of proof to establish a prima facie case of obviousness ...", the Examiner respectfully disagrees. Since Gilblom et al teaches the conventional synthesizing means for synthesizing

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images to make a panoramic image (see 112 of Figure 6 and column 7, line 55 to column 8, line 41 of Gilblom et al) and since Lanckton et al teaches the particular synthesizing of images from sensing means arranged separately on a mobile object (see column 7, lines 15-65), it is submitted again that it is considered obvious to provide the plural sensing means 14 of Gilblom et al on the mobile object of Lanckton et al to thereby further provide the first and second image sensing means, i.e. 14 of Gilblom et al, being arranged separately on a mobile object with a known distance between them in the moving direction, and with the images synthesized from the plural mobile object based image sensing means to make panoramic image data as claimed. The Examiner wants to further point out that: It is not necessary that the references actually suggest, expressly or in so many words, the changes or improvements that applicant has made. The test for combining references is what the references as a whole would have suggested to one of ordinary skill in the art. (See *In re Sheckler*, 168 USPQ 716 (CCPA 1971); *In re McLaughlin* 170 USPQ 209 (CCPA 1971); *In re Young* 159 USPQ 725 (CCPA 1968)).

Regarding the applicants' arguments at pages 7-9 of the amendment filed July 18, 2003 concerning in general that "... In contrast, the patents to Gilblom et al, Lanckton et al, and Fields et al do not disclose or suggest a method of synthesizing image data from plural mobile-object-based image sensing means to make panoramic image data. The failure of these patents to disclose or suggest at least this feature proves fatal to establishing a prima facie case of obviousness against independent Claim 24 ...", the Examiner wants to point out that such arguments have been addressed in the above paragraph.

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Regarding the applicants' arguments at pages 10-11 of the amendment filed July 18, 2003 concerning in general that the Applicants' motivation for inventing this combination was to avoid imaging the roof of the mobile object with the image sensing means, which would lower the image quality and that the Office Action never explains these well known image synthesizing and recording purposes, thus failing to provide the convincing line of reasoning required by MPEP 2142, the Examiner wants to firstly point out that: The Specification is not the measure of invention. Therefore, limitations contained therein can not be read into the claims for the purpose of avoiding the prior art. In re Sporck, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968). It is nevertheless that Lanckton et al does not image the roof of the mobile object with the image sensing means as well. Secondly, the Examiner has provided the convincing line of reasoning in formulating the section 103 rejection as presented in the previous Office Action (see Paper no. 23) and as explained in the above. It is again that the well known synthesizing and recording features as claimed are found in the combination of Gilblom et al and Lanckton et al, thereby rendering the invention obvious.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. **Any response to this final action should be mailed to:**

**Box AF**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**


(703) 872-9314, (for formal communications; please mark "EXPEDITED  
PROCEDURE") (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.

  
RICHARD LEE  
PRIMARY EXAMINER

Richard Lee/rl

9/30/03

